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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/824,233	04/14/2004	Frank Jordens	2001P16038WOUS	6342

46726 7590 10/03/2005

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EXAMINER	
COOKE, COLLEEN P	

ART UNIT	PAPER NUMBER
1754	

DATE MAILED: 10/03/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/824,233	JORDENS ET AL.	
	Examiner	Art Unit	
	Colleen P. Cooke	1754	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 August 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *13-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *13-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☒ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date: _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Response to Arguments

Applicant's arguments filed 8/29/05 been fully considered but they are not persuasive.

Rather than argue the specifics of the rejections made, the applicant has argued each reference applied. As more than one rejection was made using each reference, it has been left to the examiner to decide how the arguments made with respect to the art apply to the specific rejections made. In this case, because the applicant is arguing limitations found either in claim 13 and/or claim 31, the two pending independent claims, it must be assumed that the rejection to which the arguments are specifically relevant are those applied to the independent claims under 35 U.S.C. 102. As no arguments were directed specifically to the 102/103 rejections made, there is no arguments to address with respect to these rejections which therefore have not bee overcome.

The applicant argues that Chay teaches the porous surface *adsorbs*, rather than *absorbs*. This argument is not persuasive for at least the following reasons. First, in response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., food stains being absorbed into the structure of the coating) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Second, Chay teaches (Column 12, lines 13-15) teaches that the porous coating has the ability to *absorb* a substance. Furthermore, being that both Chay and the instant application are drawn to porous ceramic catalytic coatings for use in self-cleaning cookware, it is unclear what distinction the applicant is trying to make.

Chay teaches (Column 1, lines 10-25; Column 4, lines 39-51) a coating which enables remnants of foodstuffs to be removed without mechanical action, which is exactly that which is claimed.

The applicant further argues, with respect to Chay, that Chay is silent as to the pores which are defined as "being in the porous particles, not as part of the porous ceramic catalyst". The distinction the applicant is trying to make between pores in the "porous particles" referred to versus the pores in the "ceramic catalyst" is unclear on it's face and made further so by no reference at any time to any teaching from Chay directly. Chay does teach a coating which includes a porous refractory phase and also includes braunite (Column 2, lines 17-30). Chay further teaches that the refractory phase itself is porous (Column 3, lines 4-12) and further that the braunite is additionally porous (Column 3, lines 15-17). Chay even goes so far as to specifically teach that the porous coating derives porosity from the particles themselves (Column 8, lines 57-66). Thus Chay teaches that the coating is formed from a plurality of porous particles having pores therein, which is exactly that which is claimed. No distinction has been shown. Furthermore, the applicant goes on to define such pores as having no solid or liquid secondary phase therein and broadly asserts Chay is silent with respect to this feature. Although Chay may be silent specifically as to the presence of solid or liquid secondary phases, Chay meets the claim limitation by having the porous particles as claimed, which have open porosity and further no vitrification as taught (Column 2, lines 22-25) which results in no solid or liquid secondary phases.

Lastly, the applicant argues with respect to newly presented claim 31, that Chay does not teach or suggest two types of pores. However, the ceramic coating of Chay will inherently have both types of porosity, as the particles taught by Chay are taught specifically to be porous

themselves and also as the process inherently creates or allows for porosity between the particles as well. Given that the article of Chay inherently posses this porosity to any degree, Chay will also inherently meet the subsequent limitations of claim 31 wherein the pores can spread and absorb food remnants and also serve as oxygen reservoirs. The applicant has merely asserted Chay does not meet these limitations. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

It is noted that the applicant, for the most part, has neither cited nor referred to the specific teachings of Chay to show either how the teachings do not meet the claim limitations or are in any way contrary to the limitations. The applicants' arguments, absent such support and clarification, have been interpreted as best possible by the examiner.

The applicant argues that Stiles is silent as to pores in the porous particles not having solid or liquid secondary phases therein and as to having two different types of porosity, which types function to maximize penetration of foodstuffs and to supply oxygen. It is again noted that the applicant has neither cited nor referred to the specific teachings of Stiles to show either how the teachings do not meet the claim limitations or are in any way contrary to the limitations. The

applicants' arguments, absent such support and clarification, have been interpreted as best possible by the examiner.

Although Stiles may be silent specifically as to the presence of solid or liquid secondary phases, Stiles meets the claim limitation by having the porous particles as claimed, which have open porosity. The applicant seems to suggest Stiles has solid and/or liquid secondary phases present yet does not explain or support this position; what in the reference has led the applicant to this conclusion? Absent any such evidence, the examiner maintains that Stiles meets this claim limitation.

Additionally, given that the article of Stiles inherently possesses both types of porosity to any degree (which applicant does not argue with respect to Stiles), Stiles will also inherently meet the subsequent limitations of claim 31 wherein the pores can spread and absorb food remnants and also serve as oxygen reservoirs. The applicant has merely asserted Stiles does not meet these limitations. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant's arguments do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

Claim Objections

Claim 26 is objected to because of the following informalities: The claim appears to contain a typographical error in line 2 which refers to inorganic "builder" instead of inorganic "binder". Appropriate correction is required.

Claim Rejections - 35 USC § 112

Claims 16, 18, 19, and 27-30 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "substantially in the range of", "substantially permanently", "substantially 500°C" or "substantially about" in claims 16, 18, 19, 27-30 are relative terms which render the claim indefinite. These terms are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

Claims 21, 22, and 26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Each of claims 21 and 22 are formatted so as to effectively require at least one of A, B, C, D including at least one of a, b, c, d. This claim format is unclear because it does not clarify what is actually required by the claim. Is the claim requiring at least one of A, B, C, D, AND additionally including at least one of a, b, c, d OR is the claim requiring at least one of A, B, C,

D, wherein D includes at least one of a, b, c, d OR is the claim requiring at least one of A, B, C, D, wherein that at least one of A, B, C, D includes at least one of a, b, c, d itself? For example, with respect to claim 21, is the claim statisfied by any nanoscale particle, a nanoscale particle including a transition metal, a metal that is not a transition metal, etc.? The applicant is advised to carefully review and revise the claim language, paying particular attention to the placement and use of "and", "or", "including" and punctuation.

Similarly but with different specific language, claim 26 is formatted in such a way that it is unclear what is actually required to satisfy the claim. The claim as written requires at least one of silicone resin and an inorganic soil, each formed of at least one of A, B, C, D, E, F, G and mixtures of at least two of a or b, c, d, and e or f. Does a silicone formed of A alone meet the claim or must A also include a mixture? If so is that mixture met by a, c, d, and e or a and d? The applicant is advised to carefully review and revise the claim language, paying particular attention to the placement and use of "and", "or", "including" and punctuation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-18, 23-26, 28-30, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Chay (3888790).

Chay teaches a porous ceramic catalytic coating for use in self-cleaning ovens and pollution control devices (Column 1, lines 10-12) wherein the coating includes a silicate binder (Column 3, lines 37-44) and also includes porous particles of a refractory material which may be metal oxides of Si, Al, Ti, or Zr (Column 3, lines 4-12) and which porosity includes open-cell pores. Chay teaches the metal oxides (refractory) particles are a "fine powder" (Column 3, line 29) and further that the oxides particles be less than 74 μm (Column 5, lines 24-23).

It is noted that claims 16, 18, and 28-30 use the terms "substantially in the range of", "substantially permanently", "substantially 500°C" or "substantially about" which are indefinite as described above. The teachings of Chay appear to meet the claimed ranges given the degree of indefiniteness expressed and not defined. Further, with particular respect to claim 18, as the binder taught by Chay is a silicate it would inherently be "substantially permanently temperature resistant up to substantially 500°C" as claimed.

Regarding claim 31 specifically, Chay teaches the structure claimed which would therefore inherently possess the claimed properties of being "sufficient" to spread and absorb remnants of foodstuff, to function as oxygen reservoirs. Furthermore, with regard to this last limitation of functioning as an oxygen reservoir, this limitation of claim 31, from lines 11-19 appears to cite an intended use that:

> the pores function as oxygen reservoirs whereby decomposition does not exclusively depend on oxygen supply from the surface and sides of the structure and wherein a sealing of the surface of the coating by large amounts of foodstuffs does not lead to a blocking of composition within the entire layer.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the

intended use, then it meets the claim. In this case Chay teaches the structure claimed and therefore meets these limitations.

Claims 13-15, 17-18, 20-26, and 31 are rejected under 35 U.S.C. 102(b) as being anticipated by Stiles (3993597).

Stiles teaches a catalytic composition for coating the surfaces of cooking devices (Column 1, lines 13-15) wherein the coating includes a silicate binder (Column 4, lines 52-58) and porous metal oxide particles which may be a refractory material such as oxides of Al, Ti, B, Si and specifically teaches TiO2, Zr2O3 and SiO2 (Column 5, lines 30-40 and 45-49) which have open porosity. Stiles additionally teaches that other oxides may be added for pigment (Columns 5-6, lines 64-4).

It is noted that claims 18 and 28-30 use the terms "substantially permanently", "substantially 500°C" or "substantially about" which are indefinite as described above. The teachings of Stiles appear to meet the claimed ranges given the degree of indefiniteness expressed and not defined. Further, with particular respect to claim 18, as the binder taught by Chay is a silicate it would inherently be "substantially permanently temperature resistant up to substantially 500°C" as claimed.

Regarding claim 31 specifically, Stiles teaches the structure claimed which would therefore inherently possess the claimed properties of being "sufficient" to spread and absorb remnants of foodstuff, to function as oxygen reservoirs. Furthermore, with regard to this last limitation of functioning as an oxygen reservoir, this limitation of claim 31, from lines 11-19 appears to cite an intended use that:

> the pores function as oxygen reservoirs whereby decomposition does not exclusively depend on oxygen supply from the surface and sides of the structure and wherein a sealing of the surface of the coating by large amounts of foodstuffs does not lead to a blocking of composition within the entire layer.

A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. In this case Stiles teaches the structure claimed and therefore meets these limitations.

Claim Rejections - 35 USC § 102/103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claim 19 and 27 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Chay (3888790) as described with respect to claims 13 and 18 above.

Chay teaches that the binder can be formulated from commercially available frits (Column 5, lines 3-7) and that upon mixing with the other coating components such be ballmilled since the frit must be reduced to a fine powder of less than 74μm (Column 6, lines 50-55).

It is noted that claims 19 and 27 use the terms "substantially in the range of" or "substantially about" which are indefinite as described above. The teachings of Chay appear to meet the claimed ranges given the degree of indefiniteness expressed and not defined.

Claims 16, 19, and 27-30 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Stiles (3993597) as described with respect to claims 13 and 18 above.

Stiles teaches in several examples that the particle sizes for the various components are: less than 35 μm (Column 9, line 28; Column 11, lines 11), less than 25 μm (Column 11, line 18), and in the range of 2-15 μm (Column 11, lines 47-48). If this does not anticipate the claimed ranges for each specific component, it would be obvious for the components to have these sizes because to provide a more even coating and the desired porosity.

It is noted that claims 16, 19, and 27-30 use the terms "substantially in the range of", "substantially permanently", "substantially 500°C" or "substantially about" which are indefinite as described above. The teachings of Stiles appear to meet the claimed ranges given the degree of indefiniteness expressed and not defined.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Colleen P Cooke whose telephone number is 571-272-1170. She can normally be reached Mon.-Thurs. 8am-6:30pm.

If attempts to reach the examiner by telephone are unsuccessful, her supervisor, Stan Silverman can be reached at 571-272-1358. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Colleen P. Cooke 9/27/05
Colleen P Cooke
Primary Examiner
Art Unit 1754